

## ABSTRACT

The present invention generally relates to the treatment or inhibition of diseases associated with HIV-1 infection. In particular, the present invention identifies a protein, which is secreted by macrophages as a result of HIV infection.

- 5 The secreted protein induces apoptosis in neuronal cells, as well as T cells and B cell. The protein is specifically expressed in the neuronal tissue of HAD patients but not in the neuronal tissue of patients with non-HIV associated dementia. Methods and compositions for decreasing, inhibiting, or otherwise abrogating neuronal cell apoptosis that leads to HIV-1 associated dementia are described.